

WHAT IS CLAIMED IS:

1. A method for exposing an image sensor, comprising:

5 taking multiple color data readings with more than one sensing elements of an array in one collecting location during a single exposure;

associating the one collecting location with a pixel position in an image to be portrayed; and

determining a color value for the pixel position in the image based on the multiple color data readings.

- 10 2. The method of claim 1, further comprising:

determining a sensing element of the more than one sensing elements is defective, wherein the sensing element is associated with a color; and

15 positioning the array to align a non-defective sensing element of the more than one sensing elements with the one collecting location, wherein the non-defective sensing element is associated with the color.

- 20 3. The method of claim 1, wherein taking comprises taking multiple color data readings with more than one sensing elements, wherein the more than one sensing elements comprise color filters selected from a group of color filters comprising red, green, blue, cyan, orange, yellow, magenta, or clear.

- 25 4. The method of claim 1, wherein taking comprises moving the array to position another sensing element into the one collecting location to obtain the multiple color data readings.

5. The method of claim 4, wherein moving comprises moving the array with a solid-state motor comprising piezoelectric crystals that move in response to current.

6. The method of claim 1, wherein taking comprises:

capturing a first of the multiple color data readings with a first sensing element of the more than one sensing elements in the one collecting location, wherein the first sensing element comprises a first light sensor covered by a red filter;

5 moving the array to align a second sensing element of the more than one sensing elements with the one collecting location, wherein the second sensing element comprises a second light sensor covered by a blue filter;

capturing a second of the multiple color data readings with the second sensing element;

10 moving the array to align a third sensing element of the more than one sensing elements with the one collecting location, wherein the third sensing element comprises a third light sensor covered by a green filter; and

capturing a third of the multiple color data readings with the third sensing element.

- 15 7. The method of claim 1, wherein determining comprises calculating the color value with at least one of the multiple color data readings.

8. A machine-accessible medium containing instructions, which when executed by a machine, cause said machine to perform operations, comprising:

taking multiple color data readings with more than one sensing elements of an array in one collecting location during a single exposure;

5 associating the one collecting location with a pixel position in an image to be portrayed; and

determining a color value for the pixel position in the image based on the multiple color data readings.

- 10 9. The machine-accessible medium of claim 8, wherein the operations further comprise determining a sensing element of the more than one sensing elements is defective, wherein the sensing element is associated with a color, is defective; and

15 positioning the array to align a non-defective sensing element of the more than one sensing elements with the one collecting location, wherein the non-defective sensing element is associated with the color.

10. The machine-accessible medium of claim 8, wherein taking comprises taking multiple color data readings with more than one sensing elements, wherein the more than one sensing elements comprise color filters selected from a group of color filters comprising
20 red, green, blue, cyan, orange, yellow, magenta, or clear.

11. The machine-accessible medium of claim 8, wherein taking comprises moving the array to position another sensing element into the one collecting location to obtain the multiple color data readings.

- 25 12. The machine-accessible medium of claim 8, wherein moving comprises moving the array with a solid-state motor comprising piezoelectric crystals that move in response to current.

13. A device, comprising:

a series of sensing elements, adapted to collect multiple color data readings to determine a color value for a pixel in an image and

reflective optics to redirect light to the series of sensing elements successively within one exposure.

14. The device of claim 13, wherein the series of sensing elements comprises a first element sensitive to red light, a second element sensitive to blue light, and a third element sensitive to green light.

15. The device of claim 13, wherein the reflective optics comprise a digital micromirror device and control circuitry to redirect the light to the series of sensing elements successively within the one exposure.

16. The device of claim 13, wherein the reflective optics include a mirror to scan light to the series of sensing elements.

17. A system, comprising:

a plurality of sensing elements, comprising light sensors covered with colored filters to receive light and to generate filtered readings of data of the light;

a motor coupled to the plurality of light sensors, the motor configured to move the plurality of light sensors;

moving logic coupled with the motor to move the plurality of light sensors in succession into the single collecting location to take the filtered readings;

a memory to associate the filtered readings from a collecting location with a pixel position in an image and to store the association into a location in memory; and

a calculator to calculate a color value based upon the filtered readings from the plurality of light sensors.

18. The system of claim 17, further comprising logic to determine that a light sensor of the plurality of light sensors is defective, the light sensor associated with a color, wherein the moving logic is able to position the plurality of light sensors to align with the single collecting location a non-defective light sensor of the plurality of light sensors, the non-defective light sensor associated with the color.

19. The system of claim 17, wherein the plurality of light sensors covered with colored filters, the colored filters being selected from a group of color filters comprising red, green, blue, cyan, orange, yellow, magenta, or clear.

20. The system of claim 17, wherein the moving logic is configured to move the plurality of light sensors to position another light sensor of the plurality of light sensors into the single collecting location to obtain the filtered readings of color data values in the single collecting location.

21. The system of claim 20, wherein the motor comprises a piezoelectric motor.